

Serial No.: 09/919,345  
Filed: July 30, 2001

Please amend the application as follows to comply with requirements for patent applications containing nucleotide sequence and/or amino acid sequence disclosures in adherence with rules 37 C.F.R. § 1.821-1.825:

**IN THE SPECIFICATION:**

Please replace the paragraph beginning at page 22, line <sup>22</sup>~~21~~, with the following rewritten paragraph:

A1 In a preferred embodiment, the gene family is involved in DNA mismatch repair, such as mutL, hexB and PMS1. Members of this family include, but are not limited to, MLH1, PMS1, PMS2, HexB and Mull. The protein consensus sequence is G-F-R-G-E-A-L (SEQ ID NO:1). --

Please replace the paragraph beginning at page 45, line 1, with the following rewritten paragraph:

A2 ~~1~~ PNA activated targeting of linear plasmid DNA containing the human HPRT gene by RecA-coated complementary single-stranded (css) probes (See Figure 5A, 5B and 5C): Plasmid pHp3A-pUC containing a 530 bp fragment of human HPRT gene was cloned into the EcoR1-HindIII site of the vector pUC 18 (See Figure 5A). Complementary strand probes (1-2) and (1-3) were obtained by PCR from the pHp3A-pUC plasmid using the primers shown in Figure 5A. The human HPRT fragment contains sequence (dT)/(dA) 13 (SEQ ID NO:2), which provides an ideal binding site for the PNA lys-T<sub>10</sub>-lys (SEQ ID NO:3). No other (dT)/(dA)-stretches longer than 5 bp are present within the HPRT fragment. The probe (1-2) has a three bp overlap with the PNA binding site. T10 was used instead of T13 PNA because the solubility of the PNA decreased with increased length. Thus, PNA could occupy four different positions within the site, with the

Serial No.: 09/919,345

Filed: July 30, 2001

A2 overlap with the (1-2) probe varying from 0 to 3. The probe (1-3) contained the PNA binding site within it.

On page 46, immediately preceding the heading "CLAIMS," please insert the enclosed text entitled "SEQUENCE LISTING".

#### REMARKS

The specification has been amended to include a Sequence Listing and proper reference to the sequences therein. Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Entry of this amendment is respectfully requested. The amendments are made in adherence with 37 C.F.R. § 1.821-1.825. This amendment is accompanied by a floppy disk containing the above named sequence, SEQUENCE ID NUMBERS 1-3 in computer readable form, and a paper copy of the sequence information. The computer readable sequence listing was prepared through use of the software program "PatentIn" provided by the PTO. The information contained in the computer readable disk is identical to that of the paper copy. This amendment contains no new matter. Applicant submits that this amendment, the accompanying computer readable sequence listing, and the paper copy thereof serve to place this application in a condition of adherence to the rules 37 C.F.R. § 1.821-1.825.


Serial No.: 09/919,345  
Filed: July 30, 2001

Please direct any calls in connection with this application to the undersigned at (415) 781-1989.

Respectfully submitted,

FLEHR HOHBACH TEST  
ALBRITTON & HERBERT LLP

Dated: Nov 19, 2001

  
Richard F. Trecartin  
Reg. No. 31,801

Four Embarcadero Center  
Suite 3400  
San Francisco, CA 94111-4187  
Telephone: (415) 781-1989